

Applicant : Somashekhar Ramechandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 2 of 16

Attorney's Docket No.: 15786-016001

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Currently Amended) The method of claim 341, wherein the method further comprises ~~facilitating within the computing environment, selection of one of the one or more edges, including causing assigning~~ one or more tracking attributes to be associated with the one or more selected edges within the computing environment, ~~with where~~ the tracking attributes specifying specify that at least the one or more of the tracking attributes are to be propagated during each of a split, copy ~~and~~ or merge operation performed within the computing environment on the selected edge.
3. (Original) The method of claim 2, wherein the one or more tracking attributes include a unique index, i, incremented for each edge.
4. (Currently Amended) The method of claim 342, wherein the method further comprises ~~calling a shape manager of the computing environment to replicate replicating one or more of the data representations of a wire body for one or more of the selected one or more edges.~~
5. (Currently Amended) The method of claim 341, wherein the generating within the computing environment, generating a data representation of a wire body for each of the one or more selected edges an initial set of one or more data representations of one or more wire

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 3 of 16

Attorney's Docket No.: 15786-016001

bodies comprises calling a shape manager of the computing environment to synthesize a wire body for one of the one or more edges.

6. (Canceled)
7. (Canceled)
8. (Currently Amended) The method of claim 347, wherein the method further comprises creating facilitating specification within the computing environment, welding parameters of the weld bead.
9. (Currently Amended) The method of claim 347, wherein the method further comprises facilitating persistent attribute assignment within the computing environment, including persistent attribute assignment of a name for each of the one or more selected edges~~an edge of the weld bead~~.
10. (Currently Amended) The method of claim 9, wherein the persistent attribute assignment comprises retrieving from a source within the computing environment, one or more identifications identifying an edge of the one or more edges of the components of an article of manufacture to be welded~~one or more edges of the one or more components, including the component to which the edge is a part, associated with the edge of the weld bead~~.
11. (Currently Amended) In a computing environment, a method of operation comprising:  
selecting within the computing environment, an edge of a weld bead whose data representation is formed based on one or more data representations of one or more edges or one or more components of an article of manufacture to be welded together using the weld bead at the one or more edges when manufacturing the article;

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 4 of 16

Attorney's Docket No.: 15786-016001

retrieving from a source within the computing environment, one or more identifications identifying both the one or more edges of the one or more components and the one or more components~~edge of the one or more edges of the one or more components, including the component to which the edge is a part, associated with the edge of the weld bead;~~

forming within the computing environment, a name attribute based at least in part on the retrieved one or more identifications; and

assigning within the computing environment, the name attribute to the selected edge of the weld bead.

12. (Original) The method of claim 11, wherein  
the retrieving is repeated for each edge of each component associated with the edge of the weld bead; and  
the forming is based at least in part on all the retrieved identifications.

13. (Original) The method of claim 11, wherein the selecting, retrieving, forming and assigning are repeated for each edge of the weld bead.

14. (Canceled)

15. (Currently Amended) The machine readable article of claim 3614, wherein the instructions are further designed to facilitate ~~within the apparatus, selection of one of the one or more edges, including causing assign~~ one or more tracking attributes to be associated with the one or more selected edges within the apparatus, ~~with where~~ the tracking attributes ~~specify~~specify that at least the one or more of the tracking attributes are to be propagated during each of a split, copy ~~and~~ or merge operation performed within the apparatus on the selected edge.

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 5 of 16

Attorney's Docket No.: 15786-016001

16. (Currently Amended) The machine readable article of claim 3614, wherein the instructions are further designed to generate a data representation of a wire body for each of the one or more selected edges ~~perform the generating within the apparatus, an initial set of one or more data representations of one or more wire bodies~~ by calling a shape manager of the apparatus to synthesize a wire body for one of the one or more edges.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) The machine readable article of claim 3618, wherein the instructions are further designed to facilitate specification ~~create~~ within the apparatus, welding parameters of the weld bead.

20. (Currently Amended) The machine readable article of claim 3618, wherein the instructions are further designed to facilitate persistent attribute assignment within the apparatus, including persistent attribute assignment of a name for each of the one or more selected edges ~~an edge of the weld bead~~.

21. (Canceled)

22. (Currently Amended) The apparatus of claim 3821, wherein the instructions are further designed to enable the apparatus to facilitate selection, within the apparatus, one of the one or more edges, including causing ~~assign~~ one or more tracking attributes to be associated with the one or more selected edges within the apparatus, with ~~where~~ the tracking attributes specifying ~~specify that~~ at least the one or more of the tracking attributes are to be propagated

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 6 of 16

Attorney's Docket No.: 15786-016001

during each of a split, copy and/or merge operation performed within the apparatus on the selected edge.

23. (Currently Amended) The apparatus of claim 22, wherein the one or more tracking attributes include a unique index, i, incremented for each edge.

24. (Currently Amended) The apparatus of claim 22, wherein the instructions are further designed to enable the apparatus ~~further comprises a shape manager, and the instructions are further designed to call the shape manager to replicate one or more of the selected one or more edges.~~

25. (Currently Amended) The apparatus of claim 3824, wherein the apparatus further comprises a shape manager, and the instructions are further designed to generate a data representation of a wire body for each of the one or more selected edges ~~perform the generating within the apparatus, an initial set of one or more data representations of one or more wire bodies~~ by calling the shape manager to synthesize a wire body for one of the one or more edges.

26. (Canceled)

27. (Canceled)

28. (Currently Amended) The apparatus of claim 3827, wherein the instructions are further designed to facilitate specification ~~create~~ within the apparatus, welding parameters of the weld bead.

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 7 of 16

Attorney's Docket No.: 15786-016001

29. (Currently Amended) The apparatus of claim 3827, wherein the instructions are further designed to facilitate persistent attribute assignment within the apparatus, including persistent attribute assignment of a name for each of the one or more selected edges an edge of the weld bead.

30. (Currently Amended) The apparatus of claim 29, wherein the instructions are further designed to perform the persistent attribute assignment by retrieving one or more identifications identifying an edge of the one or more edges of the components of an article of manufacture to be welded ~~one or more components, including the component to which the edge is a part, associated with the edge of the weld bead.~~

31. (Currently Amended) An apparatus comprising:

a storage medium having stored therein a plurality of instructions designed to enable the apparatus to

select within the apparatus an edge of a weld bead which data representation is formed based on one or more data representations of one or more edges of one or more components of an article of manufacture to be welded together using the weld bead at the one or more edges when manufacturing the article,

retrieve from a source within the apparatus, one or more identifications identifying both the one or more edges of the one or more components and the one or more components ~~an edge of the one or more edges of the one or more components, including the component to which the edge is a part, associated with the edge of the weld bead,~~

form a name attribute within the apparatus, based at least in part on the retrieved one or more identifications, and

assign within the apparatus, the name attribute to the selected edge of the weld bead; and

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 8 of 16

Attorney's Docket No.: 15786-016001

one or more processors coupled to the storage medium to execute the instructions.

32. (Original) The apparatus of claim 31, wherein the instructions are further designed to

repeat the retrieving for each edge of each component associated with the edge of the weld bead; and

perform the forming based at least in part on all the retrieved identifications.

33. (Original) The apparatus of claim 32, wherein the instructions are further designed to repeat the selecting, retrieving, forming and assigning for each edge of the weld bead.

34. (New) In a computing environment, a method to represent a weld bead to be used to weld one or more components of an article of manufacture at one or more edges of the one or more components in the manufacturing of the article outside the computing environment, the method comprising:

selecting one or more edges of the one or more components of the article of manufacture to be welded;

generating a data representation of a wire body for each of the one or more selected edges; and

generating a data representation of a final wire body based on the data representations of a wire body for each of the one or more selected edges.

35. (New) The method of claim 34, where generating a data representation of a final wire body comprises:

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 9 of 16

Attorney's Docket No.: 15786-016001

if in the generating a data representation of a wire body for each of the one or more selected edges step only one data representation of a wire body is generated, then using said data representation of a wire body as the data representation of the final wire body, else, uniting the more than one data representations to form the data representation of the final wire body.

36. (New) A machine readable article comprising  
a machine readable storage medium; and  
a plurality of machine executable instructions stored in the machine readable storage medium, with the instructions designed to enable an apparatus to  
select one or more edges of one or more components of an article of manufacture to be welded;

generate a data representation of a wire body for each of the one or more selected edges;  
and  
generate a data representation of a final wire body based on the data representations of a wire body for each of the one or more selected edges.

37. (New) The machine readable article of claim 36, wherein the instructions are further designed to generate within the apparatus, a final data representation of a final wire body by

if in the generating a data representation of a wire body for each of the one or more selected edges step only one data representation of a wire body is generated, then using said data representation of a wire body as the data representation of the final wire body, else, uniting the more than one data representations to form the data representation of the final wire body.

Applicant : Somashekhar Ramachandran  
Subrahmanyam  
Serial No. : 10/644,629  
Filed : August 19, 2003  
Page : 10 of 16

Attorney's Docket No.: 15786-016001

38. (New) An apparatus comprising:  
a storage medium having stored therein a plurality of instructions designed to enable the apparatus to  
select one or more edges of one or more components of an article of manufacture to be  
welded;  
generate a data representation of a wire body for each of the one or more selected edges;  
and  
generate a data representation of a final wire body based on the data representations of a  
wire body for each of the one or more selected edges; and  
a processor coupled to the storage medium to execute the instructions.

39. (New) The apparatus of claim 38, wherein the instructions are further designed to  
perform the generating within apparatus, a final data representation of a final wire body by  
if in the generating a data representation of a wire body for each of the one or more selected  
edges step only one data representation of a wire body is generated, then using said data  
representation of a wire body as the data representation of the final wire body, else, uniting the  
more than one data representations to form the data representation of the final wire body.